

Accepted Manuscript

Title: Simulating forensic casework scenarios in experimental studies: The generation of footwear marks in blood

Author: Rachel L. McElhone Georgina E. Meakin James C. French Tracy Alexander Ruth M. Morgan



PII: S0379-0738(16)30109-8
DOI: <http://dx.doi.org/doi:10.1016/j.forsciint.2016.03.023>
Reference: FSI 8383

To appear in: *FSI*

Received date: 28-8-2015
Revised date: 12-1-2016
Accepted date: 11-3-2016

Please cite this article as: R.L. McElhoneG.E. MeakinJ.C. FrenchT. Alexander Morgan Simulating forensic casework scenarios in experimental studies: The generation of footwear marks in blood, *Forensic Science International* (2016), <http://dx.doi.org/10.1016/j.forsciint.2016.03.023>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

1 **Simulating forensic casework scenarios in experimental studies:**
2 **The generation of footwear marks in blood**

3
4 Rachel L. McElhone^{a,b}, rachel.l.mcelhone@bath.edu

5 Georgina E. Meakin^{a,b}, g.meakin@ucl.ac.uk

6 James C. French^{a,b}, james.french@ucl.ac.uk

7 Tracy Alexander^c, Tracy.Alexander@city-of-london.pnn.police.uk

8 Ruth M. Morgan^{a,b}, ruth.morgan@ucl.ac.uk

9 ^a UCL Centre for the Forensic Sciences, 35 Tavistock Square, London, WC1H 9EZ, UK

10 ^b UCL Department of Security and Crime Science, 35 Tavistock Square, London, WC1H 9EZ, UK

11 ^c Forensic Services, City of London Police, 37 Wood Street, London, EC2P 2NQ, UK

12
13
14 **Simulating forensic casework scenarios in experimental studies:**
15 **The generation of footwear marks in blood**

16
17 **Key words**

18 Forensic science; footwear marks; blood; empirical data; interpretation; trace
19 evidence

20
21 **Abstract**

22 A study was designed to investigate the effects of external variables, including blood
23 type, flooring surface, footwear tread depth and blood dryness, on the appearance of
24 blood-based footwear marks, with particular reference to simulating a specific
25 casework scenario. Results showed that footwear marks left in human blood tended
26 to be of greater quality than those in equine blood, highlighting a potential issue in

Download English Version:

<https://daneshyari.com/en/article/6551801>

Download Persian Version:

<https://daneshyari.com/article/6551801>

[Daneshyari.com](https://daneshyari.com)